A SPECTROMETER FOR THE INVESTIGATION OF GAMMA RADIATION PRODUCED * BY NEUTRON-INDUCED REACTIONS

by

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ABSTRACT

A spectrometer for measurement of cross sections for gamma-ray production by neutron-induced reactions has been constructed for use at the Argonne National Laboratory Tandem Dynamitron Accelerator Facility.

Gamma radiation is detected by a shielded Ge(Li) detector in the angular range 30 - 135°. Neutron fluence is monitored with either a fission detector or a plastic scintillation detector. Raw data are recorded with an on-line digital computer and these data are subsequently reduced to cross sections by off-line processing.

The characteristics of this facility and general features of the data processing are described herein.

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